

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599 www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Sika Sarnafil, A Division of Sika Corp. 100 Dan Road Canton, MA 02021

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Sika Sarnafil PVC Single Ply Roofing over Recover Deck

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

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This NOA revises NOA No 13-1008.16 and consists of pages 1 through 74. The submitted documentation was reviewed by Alex Tigera.



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ROOFING SYSTEM APPROVAL

Category:RoofingSub-Category:Single PlyMaterial:PVCDeck Type:Recover

Maximum Design Pressure: See Specific Assemblies

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

		Test	Product
Product	Dimensions	Specification	<u>Description</u>
G410	60, 72 and 80 mils	ASTM D 4434	Fiberglass reinforced PVC roofing membrane.
G410 Felt	48, 60, 72 and 80 mils	ASTM D 4434	Fiberglass reinforced PVC roofing membrane with a non-woven felt backing.
G459	48, 60, 72 and 80 mils	ASTM D 4434	Fiberglass reinforced PVC Alloy asphalt compatible flashing membrane.
S327	48, 60, 72 and 80 mils	ASTM D 4434	Polyester reinforced PVC roofing membrane.
S327 Felt	48 mils	ASTM D 4434	Polyester reinforced PVC roofing membrane with a non-woven felt backing.
Sikaplan	45 mils	ASTM D 4434	White polyester reinforced PVC roofing membrane.
Sarnatape	Various	Proprietary	Air flow barrier tape
Sarnacol 2170	5 gallons	Proprietary	Solvent based bonding adhesive.
Sarnacol 2121	5 gallons	Proprietary	Water based bonding adhesive.
Sarnacol 2163		Proprietary	Insulation adhesive.
Sarnacol AD Feltback Membrane Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane membrane or insulation adhesive.
Sarnacol AD Board Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane insulation adhesive.
Sarnacol OM Feltback Membrane Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane membrane adhesive.
Sarnacol OM Board Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane insulation adhesive.
OlyBond 500	5 gallons	Proprietary	Two-component foamable polyurethane insulation adhesive.
Sarnacol 2170 VC	Various	Proprietary	Solvent-based, VOC compliant adhesive.
Sarnatred	3.25' x 32.8'	Proprietary	PVC walkway protection sheet.
Sarnavap-10	20' x 100'	Proprietary	Polyethylene air/vapor barrier.
Sarnastack	Various	Proprietary	Prefabricated cone flashing.
Sarnaclad	Various	Proprietary	Heat weldable PVC/galvanized steel flashing



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APPROVED INSULATIONS:

TABLE 2

<u>Product</u>	Product <u>Description</u>	Manufacturer (With Current NOA)
Sarnatherm	Isocyanurate Insulation	Sika Sarnafil, A Division of Sika Corp.
Sarnatherm 25 PSI	Polyisocyanurate insulation board.	Sika Sarnafil, A Division of Sika Corp.
Sarnatherm (a)	Isocyanurate Insulation	Sika Sarnafil, A Division of Sika Corp.
EPS	Type IX Expanded polystyrene with a minimum density of 1.8 pcf	Generic
XPS	Type IV Extruded polystyrene with a minimum density of 1.6 pcf	Generic
Perlite Insulation Board	Perlite Insulation	Generic
Type X Gypsum	Gypsum Wallboard	Generic
DensDeck, DensDeck Prime	Silicon treated gypsum	Georgia Pacific Gypsum LLC
H-Shield	Isocyanurate Insulation	Hunter Panels, LLC
H-Shield HD	Isocyanurate Insulation	Hunter Panels, LLC
ENRGY 3	Isocyanurate Insulation	Johns Manville Corp.
ENRGY 3 Plus	Isocyanurate Insulation with wood fiberboard facer	Johns Manville Corp.
ENRGY 3 25 PSI	Isocyanurate Insulation	Johns Manville Corp.
ACFoam-II	Isocyanurate Insulation	Atlas Roofing Corp.
ACFoam-III	Isocyanurate Insulation	Atlas Roofing Corp.
ACFoam-IV	Isocyanurate Insulation	Atlas Roofing Corp.
ACFoam Supreme	Isocyanurate Insulation	Atlas Roofing Corp.
ISO 95+ GL	Isocyanurate Insulation	Firestone Building Products Company, LLC
SECUROCK Gypsum-Fiber Roof Board	A rigid gypsum based board	United States Gypsum Corp.
SECUROCK Glass-Mat Roof Board	A rigid gypsum based board	United States Gypsum Corp.
Invinsa Roof Board	High density polyisocyanurate	Johns Manville Corp.



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APPROVED FASTENERS:

TABLE 3

Fastener Number	<u>Product</u> <u>Name</u>	Product Description	<u>Dimensions</u>	Manufacturer (With Current NOA)
1.	Dekfast 12, 14 & 15 HS	Insulation fastener for wood, steel and concrete decks		SFS Intec, Inc.
2.	Dekfast Galvalume Steel Hex	Galvalume hex stress plate.	2 7/8" x 3 1/4"	SFS Intec, Inc.
3.	Dekfast Dekflat Round Plastic Lock Plate	Polypropylene locking plate.	3" x 3 1/4"	SFS Intec, Inc.
4.	#12 Standard Roofgrip, #14 Roofgrip & #15 Roofgrip	Insulation fastener for wood, steel and concrete.		OMG, Inc.
5.	AccuTrac Hextra	Insulation fastener for wood, steel and concrete		OMG, Inc.
6.	ASAP Hex Head Pre- Assembled System	Pre-assembled Insulation fastener and plate		OMG, Inc.
7.	OMG 3" Galvalume Steel Plate	Galvalume stress plate.	3" round	OMG, Inc.
8.	AccuTrac Plate	Galvalume stress plate.	3" square	OMG, Inc.
9.	OMG Plastic Plate	Polypropylene round plate	3" round	OMG, Inc.
10.	ASAP RoofGrip Pre- Assembled System	Pre-assembled Insulation fastener and plate	Various	OMG, Inc.
11.	OMG G-2	3.5" round galvalume AZ55 steel plate	3.5" round	OMG, Inc.
12.	3 in. Round Metal Plate	3" round galvalume AZ50 steel plate	3" round	OMG, Inc.
13.	OMG Super XHD	Insulation and membrane fastener	Various	OMG, Inc.
14.	OMG Heavy Duty	Insulation and membrane fastener	Various	OMG, Inc.
15.	CD-10	Carbon steel fastener for concrete decks	Various	OMG, Inc.
16.	Sarnafastener	Insulation fastener for various decks	Various	Sika Sarnafil, A Division of Sika Corp.
17.	Sarnaplate	3" square galvalume AZ50 steel plate	3" square	Sika Sarnafil, A Division of Sika Corp.
18.	Dekfast System ES #12 Plastic	Pre-assembled Insulation fastener and plate	Various	SFS Intec, Inc.
19.	Dekfast Isofast IF/IG-C-82X40	Galvalume steel plate	1.5" x 3.2"	SFS Intec, Inc.
20.	Sarnarail Polymer Batten Strip	Polymer batten bar	0.75" x 250'	Sika Sarnafil, A Division of Sika Corp.



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APPROVED FASTENERS:

TABLE 3

<u>Fastener</u> <u>Number</u>	<u>Product</u> <u>Name</u>	<u>Product</u> <u>Description</u>	Dimensions	<u>Manufacturer</u> (With Current NOA)
21.	Sarnafastener-XP	Membrane and insulation fastener.	Various	Sika Sarnafil, A Division of Sika Corp.
22.	Sarnafil MAXLoad, Sarnafastener MAXLoad	Membrane and insulation fastener.	Various	Sika Sarnafil, A Division of Sika Corp.
23.	Sarnadisc XPN	Membrane and insulation fastener.	1.5" x 3.75"	Sika Sarnafil, A Division of Sika Corp.
24.	RhinoBond Insulation Plate	Membrane fastening plate	Various	OMG, Inc.
25.	OMG Purlin	Membrane and insulation fastener	Various	OMG, Inc.
26.	Sarnabar	Galvanized or stainless steel membrane fastening bar.	Various	Sika Sarnafil, A Division of Sika Corp.
27.	Sarnadisc MAXLoad Plate	AZ50 galvalume coated steel plate	3.5" Round	Sika Sarnafil, A Division of Sika Corp.
28.	3 in. Ribbed Galvalume Plate	Round Galvalume plated steel stress plate	3" Round	OMG, Inc.
29.	#15 Roofgrip Large Head	Carbon Steel Fastener	Various	OMG, Inc.



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EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	<u>Date</u>
		<u> </u>	
Celotex Technical Center	MTS Job No. 258215	TAS 114	09/09/97
Factory Mutual Research	0X3A3.AM	FM 4470	01/31/94
Corporation	0P6A6.AM	FM 4470	03/03/94
corporation .	2X2A5.AM	FM 4470	01/31/94
	0B9A0.AM	FM 4470	10/22/96
	4B3A2.AM	FM 4470	06/19/97
	1B7A5.AM	FM 4470	02/23/98
	3001580	FM 4470	11/16/98
	3003337	FM 4470	06/11/99
	3012964	FM 4470	06/11/02
	3015643	FM 4470	12/06/02
	3016201	FM 4470	01/28/03
	3006785	FM 4470	05/06/04
	3017292	FM 4470	09/03/04
	3024229	FM 4470	11/16/05
	3030053	FM 4470	09/12/07
	3028309	FM 4470	03/30/07
	3029404	FM 4470	09/09/08
	3014751	FM 4470	08/27/03
	3024311	FM 4470	11/01/06
	3014692	FM 4470	08/05/03
	3012321	FM 4470	07/29/02
	3018579	FM 4450	10/09/03
	3001396	FM 4470	05/28/99
	3008869	FM 4470	03/19/01
	3041256	FM 4470	07/12/11
	3053265	FM 4470	10/30/14
	3039809	FM 4470	07/06/11
	3043459	FM 4470	05/11/12
Underwriters Laboratories, Inc.	R8992	UL 790	05/15/13
Trinity ERD	4740.04.98-1	FM 4470	04/09/98
- .	S44790.06.13	ASTM D4434	06/05/13
	S42480.08.12	Physical Properties	08/20/12
	S44790.08.13	ASTM D4434	08/26/13
	S44790.07.14	ASTM D4434	07/31/14
	S45990.06.14	ASTM D4434	06/02/14



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APPROVED ASSEMBLIES

Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Concrete / lightweight concrete / cementitious wood fiber / wood / steel

System Type A(1): One or more layers of insulation fully adhered with approved asphalt, membrane adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder An FM approved vapor retarder approved for use with hot asphalt may be applied to the deck

(Optional): or base insulation layer

Fire Barrier Minimum 1/4" Type X Gypsum or DensDeck

(Optional):

One or more layers of any of the following insulations:

Insulation Layer: <u>Insulation Fasteners</u> Fastener Density/ft²

(Table 3)

Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI (bottom layer only), ACFoam-III, ACFoam-IIII, ACFoam-IIIIII, ACFoam

Supreme, H-Shield any of the above tapered

Minimum 1.3" thick N/A N/A

Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-III, ACFoam-III, ENRGY 3, ISO 95+ GL, ENRGY

3 Plus, ENRGY 3 25 PSI, H-Shield

Minimum 1.4" thick or tapered N/A N/A

DensDeck Prime

Minimum ¹/₄" thick N/A N/A

Approved Perlite Insulation Board (base layer only)

Minimum ¾" thick N/A N/A

Note: Existing roof shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.



NOA No.: 14-0624.15 Expiration Date: 05/16/17 Approval Date: 07/30/15 Page 7 of 74 Membrane:

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal./sq. to the substrate allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal./sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighed roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ISO*) Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at a rate of 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With DensDeck Prime*) Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(With ACFoam-III, ACFoam-III, H-Shield, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(With ACFoam-II, ACFoam-III, H-Shield, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure:

-45 psf. (See General Limitation #9)



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Deck Description: Steel / concrete / cementitious wood fiber / lightweight concrete / gypsum / wood

System Type A(2): One or more layers of insulation adhered with approved adhesive, membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder

FM approved vapor retarder approved for use with hot asphalt may be applied to the deck or

(Optional):

base insulation layer.

Fire Barrier (Optional):

Minimum 1/4" Type X Gypsum or DensDeck.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u> <u>Insulation Fasteners</u> <u>Fastener Density/ft²</u>

(Table 3)

Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-III, ACFoam-III, ISO 95+ GL, ENRGY 3

Maximum 1" thick N/A N/A

DensDeck Prime

Minimum 5/8" thick N/A N/A

Note: Insulation shall be adhered to the deck in full coating of OlyBond Adhesive Fastener at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate

Membrane:

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ISO*) Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.



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(*With DensDeck Prime*) Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(With ACFoam-III, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressures:

-45 psf. (See General Limitation #9)



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Deck Description: Cementitious wood fiber / Gypsum

System Type A(3): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

<u>Base Insulation Layer:</u>

<u>Insulation Fasteners</u>
(Table 3)

<u>Fastener</u>
Density/ft²

Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ISO 95+ GL, ENRGY 3, H-Shield Minimum 1" thick N/A N/A

DensDeck Prime

Minimum 0.25" thick N/A N/A

Top Insulation Layer: <u>Insulation Fasteners</u> <u>Fastener</u>

Density/ft²

DensDeck Prime

Minimum 0.25" thick N/A N/A

Note: All insulation shall be adhered to the deck in full coating of OlyBond Adhesive Fastener at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane:

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld

Or

Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive or Sarnacol 2170 VC adhesive applied roller applied at a rate of 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.



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Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure:

-45 psf. (See General Limitation #9)



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Deck Description: Gypsum

System Type A(4): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders Any UL or FM approved asphaltic vapor retarder may be installed over the deck or the

(Optional): base layer of insulation

One or more layers of the following insulations:

Base Insulation Layer (Optional):Insulation FastenersFastener(Table 3)Density/ft²

Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ISO 95+ GL, ENRGY 3, H-Shield Minimum 1.5" thick or tapered N/A N/A

Top Insulation Layer:Insulation FastenersFastener(Table 3)Density/ft²

DensDeck Prime

Minimum 0.25" thick N/A N/A

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of Sarnacol 2163, Sarnacol AD Board Adhesive, Sarnacol AD Feltback Membrane Adhesive, Millennium One Step Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane:

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive or Sarnacol 2170 VC adhesive roller applied at a rate of 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.



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Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure:

-45 psf. (See General Limitation #9)



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Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(5): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders (Optional):

Any UL or FM approved vapor retarder may be installed over the deck.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional):	Insulation Fasteners (Table 3)	<u>Fastener</u> Density/ft ²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, AMinimum 1.5" thick		
DensDeck Prime Minimum 0.5" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, A	ACFoam-III, H-Shield N/A	N/A

Note: All insulation shall be adhered to the deck in 3-3.5" wide beads spaced 12" o.c. of TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a

rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is

sealed with a 1.5" wide heat weld.

Or

Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.



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Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure:

-45 psf. (See General Limitation #9)



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Deck Description: Lightweight insulating concrete

System Type A(6): One or more layers of insulation adhered with approved adhesive, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

 Insulation Layer:
 Insulation Fasteners
 Fastener

 (Table 3)
 Density/ft²

Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-III, ACFoam-III, ENRGY 3, H-Shield Minimum 1" thick or tapered N/A N/A

Note: All insulation shall be adhered to the deck in ³/₄" – 1" wide beads 12" o.c. of Sarnacol OM Board Adhesive, OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane:

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate of 1.0-1.25 gal/sq to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld

Or

Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at a rate of 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.



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(With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure:

-90 psf. (See General Limitation #9)



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Deck Description: Gypsum

System Type A(7): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Insulation Layer:Insulation Fasteners
(Table 3)Fastener
Density/ft²Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield
Minimum 1.5" thickN/AN/A

Note: All insulation shall be adhered to the deck in $\frac{3}{4}$ " – 1" wide beads 12" o.c. of Sarnacol OM Board Adhesive, OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane:

Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at a rate of 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate of 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.



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(With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure:

-97.5 psf; with Sarnacol 2170 VC adhesive (See General Limitation #9) -112.5 psf; with all other applications (See General Limitation #9)



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Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(8): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Base Insulation Layer (Optional):	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> Density/ft²
		<u>Density/It</u>
Approved EPS (Not used with Sarnacol 2170 or Sarnacol 2170 V	VC)	
Minimum 2" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners	<u>Fastener</u>
	(Table 3)	Density/ft ²
DensDeck Prime		
Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in $\frac{3}{4}$ " - 1" wide beads 12" o.c. of Sarnacol OM Board Adhesive, OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane:

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive applied at 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation or with Sarnacol 2170 VC adhesive roller applied at 0.75-2gal/sq to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.



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Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure:

- -112.5 psf; Felt membranes with Sarnacol 2121 adhesive (See General Limitation #9)
- -120 psf; with all other applications (See General Limitation #9)



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Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(9): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders Any UL or FM approved asphaltic vapor retarder may be installed over the deck or the base

(**Optional**): layer of insulation

One or more layers of the following insulations:

Base Insulation Layer (Optional): Insulation Fasteners (Table 3) Fastener Density/ft²

Sarnatherm, Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ISO 95+ GL, H-Shield Minimum 1.5" thick

N/A

N/A

Top Insulation Layer:Insulation FastenersFastener(Table 3)Density/ft²

DensDeck Prime

Minimum 0.25" thick N/A N/A

Note: All insulation shall be adhered to the deck in ³/₄" – 1" wide beads 12" o.c. of Sarnacol OM Board Adhesive, OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane (Option 1); Sarnafil G410 or S327 adhered to the insulation layers as specified below.

Attachment #1: Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to

the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3"

wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #2: Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to

the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3"

wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -150.0 psf; with asphaltic vapor retarder (See General

Limitation #9)



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Sarnafil G410 Felt or S327 Felt adhered to the insulation layers as specified below. **Membrane (Option 2):**

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a Attachment #1: rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9)

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol AD Feltback Membrane Adhesive Attachment #2: or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -120.0 psf. (See General Limitation #9)

Attachment #3: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld. Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #4: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

> Maximum Design Pressure: -150.0 psf; with asphaltic vapor retarder (See General Limitation #9)

Maximum Design See Attachment. (See General Limitation #9)

Pressures:



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Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(10): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Base Insulation Layer:	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
Approved XPS		
Minimum 1" thick	N/A	N/A
Top Insulation Layer:	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> Density/ft²
DensDeck Prime		
Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in $\sqrt[3]{4}$ " – 1" wide beads 12" o.c. of Sarnacol OM Board Adhesive, OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane (Option 1): Sarnafil G410 or S327 adhered to the insulation layers as specified below.

Attachment #1: Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to

the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3"

wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Membrane (Option 2): Sarnafil G410 Felt or S327 Felt adhered to the insulation layers as specified below.

Attachment #1: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a

rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is

sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9)



NOA No.: 14-0624.15 Expiration Date: 05/16/17 Approval Date: 07/30/15 Page 25 of 74 Sarnafil G410 Felt or S327 Felt adhered with Sarnacol AD Feltback Membrane Adhesive

or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat

weld.

Maximum Design Pressure: -120.0 psf. (See General Limitation #9)

Attachment #3: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive applied at 0.75-2

> gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3"

wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Maximum Design Pressures:

See Attachment. (See General Limitation #9)



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Deck Description: Min. 200 psi lightweight insulating concrete

System Type A(11): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft ²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACF		
Minimum 1.5" thick	N/A	N/A
DensDeck Prime		
Minimum 0.25" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners	Fastener
	<u>(Table 3)</u>	Density/ft ²
DensDeck Prime		
Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in 3/4" – 1" wide beads 12" o.c. of Sarnacol OM Board Adhesive, OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane:

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive applied at 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75-2gal/sq. to the insulation or with Sarnacol 2170 VC adhesive roller applied at 0.75-2gal/sq. to the substrate and 0.5gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.



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Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure:

- -112.5 psf; Felt membranes with Sarnacol 2121 adhesive (See General Limitation #9)
- -120 psf; with all other applications (See General Limitation #9)



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Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(12): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-I Minimum 1.5" thick	I, ACFoam-III, ENRGY 3, ISO N/A	95+ GL, H-Shield N/A
DensDeck Prime Minimum 0.25" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in full coating of OlyBond Adhesive Fastener at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane (Option 1): Sarnafil G410 or S327 adhered to the insulation layers as specified below.

Attachment #1: Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to

the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3"

wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #2: Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to

the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3"

wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -150.0 psf. (See General Limitation #9)



NOA No.: 14-0624.15 Expiration Date: 05/16/17 Approval Date: 07/30/15 Page 29 of 74 **Membrane (Option 2)**; Sarnafil G410 Felt or S327 Felt adhered to the insulation layers as specified below.

Attachment #1: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is

sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9)

Attachment #2: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat

weld.

Maximum Design Pressure: -120.0 psf. (See General Limitation #9)

Attachment #3: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the

substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #4: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive applied at 0.75-2

gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3"

wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -150.0 psf. (See General Limitation #9)

Maximum Design

Pressures: See Attachment. (See General Limitation #9)



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Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(13): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders Any UL or FM approved asphaltic vapor retarder may be installed over the deck or the

(Optional): base layer of insulation

One or more layers of the following insulations:

Insulation Layer:	Insulation Fasteners	Fastener
	<u>(Table 3)</u>	Density/ft ²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II,	ACFoam-III, ENRGY 3, H-Shield	
Minimum 1.5" thick	N/A	N/A
DensDeck Prime		
Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of Sarnacol 2163, Sarnacol AD Board Adhesive, Sarnacol AD Feltback Membrane Adhesive, Millennium One Step Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane (Option 1): Sarnafil G410 or S327 adhered to the insulation layers as specified below.

Attachment #1: (With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI) Sarnafil G410 or

S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is

sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -97.5 psf. (See General Limitation #9)

Attachment #2: (With DensDeck Prime) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive

applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat

weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)



NOA No.: 14-0624.15 Expiration Date: 05/16/17 Approval Date: 07/30/15 Page 31 of 74 Attachment #3: (With DensDeck Prime) Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

**Maximum Design Pressure: -157.5 psf; with asphaltic vapor retarder (See General Limitation #9)*

Attachment #4: (*With ISO*) Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure -232.5 psf; without vapor retarder (See General Limitation #9)

Membrane (Option 2): Sarnafil G410 Felt or S327 Felt adhered to the insulation layers as specified below.

Attachment #1: (With ACFoam-III, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -97.5 psf. (See General Limitation #9)

Attachment #2: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9)

Attachment #3: (With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -120.0 psf. (See General Limitation #9)

Attachment #4: (With DensDeck Prime) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)



NOA No.: 14-0624.15 Expiration Date: 05/16/17 Approval Date: 07/30/15 Page 32 of 74 Attachment #5: (With DensDeck Prime) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170

adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld. *Maximum Design Pressure: -157.5 psf; with asphaltic vapor retarder (See General*

Limitation #9)

Maximum Design

Pressures:

See Attachment. (See General Limitation #9)



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Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(14): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders Any UL or FM approved asphaltic vapor retarder may be installed over the deck or the

(Optional): base layer of insulation

One or more layers of the following insulations:

Base Insulation Layer	<u>Insulation Fasteners</u> (<u>Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
Approved EPS		
Minimum 1.5" thick	N/A	N/A
Approved XPS Insulation Boards		
Minimum 1" thick	N/A	N/A
Top Insulation Layer	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> Density/ft²
DensDeck Prime	(Table 3)	<u>Density/It</u>
	NI/A	NI/A
Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of Sarnacol 2163, Sarnacol AD Board Adhesive, Sarnacol AD Feltback Membrane Adhesive, Millennium One Step Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane (Option 1): Sarnafil G410 or S327 adhered to the insulation layers as specified below.

Attachment #1: Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the

substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3"

wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -202.5 psf; with asphaltic vapor retarder (See General

Limitation #9)



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Sarnafil G410 Felt or S327 Felt adhered to the insulation layers as specified below. **Membrane (Option 2):**

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a Attachment #1: rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat

roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is

sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9)

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol AD Feltback Membrane Adhesive Attachment #2:

or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat

weld.

Maximum Design Pressure: -120.0 psf. (See General Limitation #9)

Attachment #3: (With Vapor Retarder) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121

adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat

weld.

Maximum Design Pressure: -202.5 psf; with asphaltic vapor retarder (See General

Limitation #9)

Maximum Design

Pressures: See Attachments. (See General Limitation #9)



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Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(15): One or more layers of insulation adhered with approved adhesive, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders

Any UL or FM approved vapor retarder may be installed over the deck.

(Optional):

One or more layers of any of the following insulations:

Insulation Layer:	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II Minimum 1.5" thick	, ACFoam-III, ISO 95+GL, H-Shield N/A	l N/A
DensDeck Prime Minimum 0.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in 3-3.5" wide beads spaced 12" o.c. of TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane (Option 1): Sarnafil G410 or S327 adhered to the insulation layers as specified below.

Attachment #1: (With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI) Sarnafil G410 or

S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is

sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -97.5 psf. (See General Limitation #9)

Attachment #2: (With DensDeck Prime) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive

applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat

weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)



NOA No.: 14-0624.15 Expiration Date: 05/16/17 Approval Date: 07/30/15 Page 36 of 74 Attachment #3:

Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -232.5 psf; with asphaltic vapor retarder (See General Limitation #9)

Membrane (Option 2);

Sarnafil G410 Felt or S327 Felt adhered to the insulation layers as specified below.

Attachment #1:

(With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -97.5 psf. (See General Limitation #9)

Attachment #2:

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9)

Attachment #3: (With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide

Maximum Design Pressure: -120.0 psf. (See General Limitation #9)

Attachment #4: (With DensDeck Prime) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #5:

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -232.5 psf; with asphaltic vapor retarder (See General Limitation #9)

Maximum Design Pressures:

See Attachment. (See General Limitation #9)



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Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(16): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders (Optional):

Any UL or FM approved vapor retarder may be installed over the deck.

One or more layers of any of the following insulations:

DensDeck Prime

Minimum 0.5" thick N/A N/A

Note: All insulation shall be adhered to the deck in 3-3.5" wide beads spaced 12" o.c. of TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane (Option 1): Sarnafil G410 or S327 adhered to the insulation layers as specified below.

Attachment #1: Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to

the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3"

wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #2: (With Vapor Retarder) Sarnafil G410 or S327 adhered with Sarnacol 2170 adhesive

applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -202.5 psf. (See General Limitation #9)



NOA No.: 14-0624.15 Expiration Date: 05/16/17 Approval Date: 07/30/15 Page 38 of 74 **Membrane (Option 2):** Sarnafil G410 Felt or S327 Felt adhered to the insulation layers as specified below.

sealed with a 1.5" wide heat weld.

Attachment #1: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is

Maximum Design Pressure: -112.5 psf. (See General Limitation #9)

Attachment #2: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -120.0 psf. (See General Limitation #9)

Attachment #3: Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld. **Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #4: (With Vapor Retarder) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -202.5 psf. (See General Limitation #9)

Maximum Design

Pressures: See Attachment. (See General Limitation #9)



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Deck Description: Concrete / lightweight concrete / cementitious wood fiber / wood / steel / gypsum

System Type B(1): Base layer of insulation mechanically attached, optional top layer fully adhered with

approved asphalt, membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder An FM approved vapor retarder approved for use with hot asphalt may be applied to the

(Optional): deck or base insulation layer

Fire Barrier Minimum 1/4" Type X Gypsum or DensDeck.

(Optional):

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners	
	<u>(Table 3)</u>	Density/ft ²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II,	ACFoam-III, H-Shield	
Minimum 1.3" thick or tapered	1 or 4	1:2 ft ²
Minimum 2" thick or tapered	1 or 4	1:4 ft ²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ENRGY 3 25 PSI, H-Shield	ACFoam-III, ENRGY-3, ENF	RGY 3 Plus,
Minimum 1.4" thick or tapered	1, 4 or 16	1:3 ft ²
Minimum 2" thick or tapered	1, 4 or 16	1:4 ft ²
DensDeck Prime		
Minimum ¼" thick	1, 4 or 16	1:1.2 ft ²
Minimum ½" thick	1, 4 or 16	1:1.7 ft ²
Approved Perlite Insulation Board		
Minimum 3/4" thick	1, 4 or 16	1:1 ft ²



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Top Insulation Layer (Optional):	Insulation Fasteners	Fastener
	<u>(Table 3)</u>	Density/ft ²
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-III, ACFoam-III		
Minimum 1.3" thick or tapered	N/A	N/A
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, A ENRGY 3 25 PSI, H-Shield	CFoam-III, ENRGY 3, EN	RGY 3 Plus,
Minimum 1.4" thick or tapered	N/A	N/A
DensDeck Prime		
Minimum ¼" thick	N/A	N/A

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Membrane:

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive rolled applied as a primer at a rate of 1.0-1.25 gal./sq. to the substrate allowed to dry. Following a second coat roller applied of adhesive at a rate 1.0 gal./sq. or with Sarnacol 2121 adhesive roller applied at 0.75 gal./sq. to the insulation. The roof cover is then immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ISO*) Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With DensDeck Prime*) Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.



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(With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(With ACFoam-II, ACFoam-III, Sarnatherm (a), Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure:

-45 psf. (See General Limitation #9)



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Deck Description: Minimum 33ksi, 22ga. steel

System Type B(2): Base layer of insulation mechanically attached, membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:

Insulation Fasteners
(Table 3)

ACFoam-III

Minimum 1.5" thick 16 with 17 1:2 ft²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the

substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 roller applied at a rate of 0.75 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide

heat weld.

Or

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol 2121 roller applied at a rate of 0.75 gal/sq. or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design

Pressure: -45 psf (See General Limitation #9)



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Single Ply, PVC **Membrane Type:** Deck Type 7I: Recover, Insulated

Deck Description: 22ga., ASTM A653 Grade 80 steel deck fastened to 0.25 in. thick structural supports spaced 6

ft. o.c. with two Traxx/5 fasteners, with ³/₄ in. washers, at each rib spaced 6 in. o.c. in rows above each support 6 ft. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in.

o.c.

System Type B(3): Base layer of insulation mechanically attached, membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer: Insulation Fasteners Fastener Density/ft² (Table 3) Sarnatherm (a), Sarnatherm 25 PSI, ACFoam-II, ACFoam-IV 1:1 ft² Minimum 2" thick 17 with 21

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive applied to the substrate at

0.75 gal/sq and to the roof cover at 0.5 gal/sq, or with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25"

wide heat weld.

Or

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to only the substrate in two coats with a total application rate of 2.0 gal/sq. or with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol AD Feltback Membrane Adhesive or OM Feltback Membrane adhesive applied in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with

a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Maximum Design

-97.5 psf (See General Limitation #7) **Pressure:**



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Deck Description: Concrete / lightweight concrete / cementitious wood fiber / wood / steel **System Type C(1):** All layers of insulation simultaneously attached, membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder (Optional):

Sarnavap-10 vapor barrier applied directly to the deck or over base insulation layer.

(Optional).

Fire Barrier Minimum 1/4" Type X Gypsum or DensDeck.

(Optional):

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners	Fastener
	<u>(Table 3)</u>	Density/ft ²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II,	ACFoam-III, ACFoam Supro	eme, H-Shield
Minimum 1.3" thick or tapered	N/A	N/A
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ISO 95+ GL, H-Shield	ENRGY 3, ENRGY 3 Plus, E	ENRGY 3 25 PSI,
Minimum 1.4" thick or tapered	N/A	N/A
DensDeck Prime		
Minimum ¹ / ₄ " thick	N/A	N/A
Approved Perlite Insulation Board (base layer only)		
Minimum ³ / ₄ " thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.



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Top Insulation Layer:	Insulation Fasteners	Fastener
	<u>(Table 3)</u>	Density/ft ²
Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-III, ACFoam-III		
Minimum 1.3" thick or tapered	1, 4 or 16	1:2 ft ²
Minimum 2" thick or tapered	1, 4 or 16	1:4 ft ²
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, E	ENRGY 3, ENRGY 3 Plus, E	NRGY 3 25 PSI,
ISO 95+ GL, H-Shield		
Minimum 1.4" thick or tapered	1, 4 or 16	1:3 ft ²
Minimum 2" thick or tapered	1, 4 or 16	1:4 ft ²
DensDeck Prime		
Minimum 1/4" thick	1, 4 or 16	1:1.2 ft ²
Minimum ½" thick	1, 4 or 16	1:1.7 ft ²

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive rolled applied as a primer at a rate of 1.0-1.25 gal./sq. to the substrate allowed to dry. Followed by a second coat roller applied of adhesive at a rate 1.0 gal./sq. or with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal./sq. to the insulation. The roof cover is then immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(With ACFoam-III, ACFoam-III, Sarnatherm (a), Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.



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(With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Maximum Design Pressure:

-45 psf. (See General Limitation #9)



NOA No.: 14-0624.15 Expiration Date: 05/16/17 Approval Date: 07/30/15 Page 47 of 74 **Membrane Type:** Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Minimum 33ksi, 16 – 22ga. steel

System Type C(2): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate

bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer: <u>Insulation Fasteners</u> <u>Fastener Density/ft²</u>

(Table 3)

Sarnatherm, H-Shield

Maximum 1.0" thick 21 with 24 See Design Pressure

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or Sikaplan bonded to RhinoBond Insulation Plates with RhinoBond Plate

bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is

sealed with a minimum 3/4" wide heat weld.

(See General Limitation #9)

Maximum Design

Maximum Pressure Fastener Spacing Fastener Row Spacing

Pressures: -45.0 psf 2 ft. 3 ft.

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Deck Description: 18 – 22ga., ASTM A653 Grade 33 steel deck fastened to 0.25 in. thick structural supports

spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx

1 fasteners spaced 24 in. o.c

System Type C(3): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate

bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	<u>Insulation Fasteners</u> (Table 3)	Fastener Density/ft ²
Sarnatherm, H-Shield		
Maximum 1" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional):	Insulation Fasteners	Fastener Density/ft ²
	<u>(Table 3)</u>	
Any approved cover board listed in Table 2		
Minimum 0.25" thick	13 with 24	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil S327 or Sikaplan bonded to RhinoBond Insulation Plates with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Side lap is sealed with

minimum 3/4" wide heat weld.

Maximum Design	Maximum Pressure	Fastener Spacing	Fastener Row Spacing
Pressures:	-45 psf	2 ft.	3 ft.
i ressures.	(See General Limitation #7)		
	-60 psf	2 ft.	2 ft.
	(See General Limitation #7)		



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Deck Description: Minimum 2500 psi concrete or concrete plank or min.

System Type C(4): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners	<u>Fastener</u>
	<u>(Table 3)</u>	Density/ft ²
Any Approved Polyisocyanurate Listed in Table 2		
Minimum 1.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer:	<u>Insulation Fasteners</u>	Fastener
	<u>(Table 3)</u>	Density/ft ²
DensDeck Prime		
Minimum 5/8" thick	16 and 17	1:2 ft ²

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:

Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the substrate or adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. or with Sarnacol AD or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

Sarnafil G410 or S327 adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or Sarnacol 2170 VC adhesive applied to the substrate at a rate of 0.75 gal/sq. to the subsrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressures:

-52.5 psf; with G410 Felt or S327 Felt (See General Limitation #7)

-60.0 psf; with G410 or S327 (See General Limitation #7)



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Deck Description: 18 – 22ga., ASTM A653 Grade 80 steel deck fastened 0.25 in thick structural supports spaced

6 ft. o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx 1

fasteners spaced 24 in. o.c

System Type C(5): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	<u>Insulation Fasteners</u> (Table 3)	Fastener Density/ft ²
Sarnatherm, H-Shield		
Maximum 1" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional):	Insulation Fasteners	Fastener Density/ft ²
	<u>(Table 3)</u>	
Any approved cover board listed in Table 2		
Minimum 0.25" thick	21 with 24	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil S327 or Sikaplan bonded to PVC Rhino Plates with Rhino Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Side lap is sealed with minimum ³/₄" wide heat

weld.

	Maximum Pressure	Fastener Spacing	Fastener Row Spacing
Maximum Design	-45 psf (See General Limitation #7)	2 ft.	3 ft.
Pressures:	-60 psf) (See General Limitation #7	2 ft.	2 ft.



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Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga., Grade 33 steel deck fastened to the 0.25" thick structural supports spaced

maximum 6' o.c. with one #12 ICH Traxx 5 fastener spaced maximum 6 in. o.c. and with

side laps secured with one #10 ICH Traxx 1 fastener spaced 24 in. o.c.

System Type C(6): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate

bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer: <u>Insulation Fasteners</u> <u>Fastener Density/ft²</u>

(Table 3)

Sarnatherm, H-Shield

Maximum 1.0" thick 21 with 24 See Design Pressure

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or Sikaplan bonded to RhinoBond Insulation Plates with RhinoBond Plate

bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is

sealed with a minimum 3/4" wide heat weld.

Maximum Design

Maximum Pressure
Fastener Spacing
Fastener Row Spacing

-60.0 psf 2 ft. 2 ft.

Pressures: (See General Limitation #7)



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Deck Type 7I: Recover, Insulated

Deck Description: 18 ga., ASTM A653, Grade 33 steel deck fastened to 0.25 in. thick structural supports

spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with two

Traxx 1 fasteners spaced 24 in. o.c.

System Type C(7): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate

bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft ²
Sarnatherm, H-Shield		

Minimum 1.5" thick N/A N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft ²
Any approved cover board listed in Table 2		
Minimum 0.25" thick	21 with 24	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil S327 or Sikaplan bonded to RhinoBond Insulation Plates with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Side lap is sealed with minimum ³/₄" wide heat weld.

Maximum Pressure Fastener Spacing Fastener Row Spacing -45 psf 12 in. 6 ft. (See General Limitation #7) -52.5 psf **Maximum Design** 12 in. 5 ft. (See General Limitation #7) **Pressures:** -90 psf 6 ft. 6 in. (See General Limitation #7) -105 psf 6 in. 5 ft. (See General Limitation #7)



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Single Ply, PVC **Membrane Type:** Deck Type 7I: Recover, Insulated

Deck Description: Concrete/gypsum/lightweight concrete or 22 ga., Grade 33 steel deck fastened to 0.25 in.

thick structural supports spaced 6 ft. o.c. with two Traxx 5 fasteners and 3/4" thick washers spaced 6 in. o.c. and with side laps fastened with one Traxx 1 fasteners spaced 12 in. o.c. Permiter securement spaced 12 in. o.c. along the 24 ft length and 6 in. o.c. along the 12 ft

length using Traxx/5 fasteners and 3/4" thick washers.

System Type C(8): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer: Insulation Fasteners Fastener Density/ft² (Table 3)

Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ACFoam-IV, H-Shield Minimum: 1.5" thick N/A N/A

Insulation Fasteners Top Insulation Layer: Fastener Density/ft²

(Table 3)

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board, SECUROCK Glass-Mat Roof Board, Invinsa Roof Board, H-Shield HD

Minimum 0.5" thick 1:1 ft² 16 with 17

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Sarnafil S327 Felt or G410 Felt adhered with Sarnacol AD Feltback Membrane Adhesive or **Membrane:**

> Sarnacol OM Feltback Membrane Adhesive applied in four rows of 0.5" wide ribbons spaced 12" o.c. or adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is

sealed with a 1.25" wide heat weld.

Or

(Not with SECUROCK coverboards) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Maximum Design

-82.5 psf. (See General Limitation #7)

Pressure:



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Deck Description: 22ga., ASTM A653 Grade 80 steel deck fastened to 0.25 in. thick structural supports spaced 6

ft. o.c. with two Traxx/5 fasteners, with ¾ in. washers, at each rib spaced 6 in. o.c. in rows above each support 6 ft. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in.

o.c.

System Type C(9): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier (Optional):

Minimum 1/4 "DensDeck, DensDeck Prime and SECUROCK Gypsum-Fiber Roof Board

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u> <u>Insulation Fasteners</u> <u>Fastener Density/ft²</u>

<u>(Table 3)</u>

Sarnatherm, H-Shield

Minimum 1.5" thick N/A N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer: <u>Insulation Fasteners</u> <u>Fastener Density/ft²</u>

(Table 3)

DensDeck Prime, SECUROCK Glass-Mat Roof Board, SECUROCK Gypsum-Fiber Roof Board, Invinsa Roof

Board

Minimum 0.25" thick 17 with 21 1:1 ft²

Note: Top insulation layer shall also be adhered with Sarnacol OM Board Adhesive or OlyBond 500 applied in ³/₄-inch ribbons spaced 12-inch o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: (Not with SECUROCK coverboards) Sarnafil G410 or S327 adhered with Sarnacol 2170 VC

adhesive applied to the substrate at 0.75 gal/sq and to the roof cover at 0.5 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.



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Sarnafil G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to only the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Maximum Design Pressure:

-127.5 psf (See General Limitation #7)



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Single Ply, PVC **Membrane Type:** Recover, Insulated Deck Type 7I:

Deck Description: Minimum 2500 psi concrete or concrete plank or min. 18-22 ga., A1008 SS Grade 80 or

> A653 Grade 80 steel deck is fastened to 0.25 in. thick structural supports, spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx 1 fasteners

spaced 24 in. o.c.

Membrane attached over preliminary fastened insulation. System Type D(1):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

insulation layer.

Fire Barrier (Optional):

(Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension

greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners	<u>Fastener</u>
	<u>(Table 3)</u>	Density/ft ²
Any approved insulation listed in Table 2		
Maximum 1.0" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Sarnafil S327 attached to deck as specified below with Sarnarail Polymer Batten Strips. **Membrane:**

Sarnafasteners-XP fasteners spaced 12" o.c. through batten strip spaced maximum 73.25" **Fastening #1:**

> o.c. within the 5.5" wide side lap. Batten strip splice joints are made by overlapping the batten 18" and securing with two Sarnafastener XP screws spaced 12" o.c. Laps are sealed with at 1.5" wide heat weld on the outside edge and 1.0" wide heat weld on the inside edge.

Maximum Design Pressure -45.0 psf. (See General Limitation #7)

Sarnafasteners-XP fasteners spaced 6" o.c. through batten strip spaced maximum 144" o.c. **Fastening #2:**

> within the 5.5" wide side lap. Batten strip splice joints are made by overlapping the batten 12" and securing with two Sarnafastener XP screws spaced 6" o.c. Laps are sealed with at

1.5" wide heat weld on the outside edge and 1.0" wide heat weld on the inside edge.

Maximum Design Pressure -52.5 psf. (See General Limitation #7)



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Fastening #3: Sarnafasteners-XP fasteners spaced 6" o.c. through batten strip spaced maximum 73.25" o.c.

within the 5.5" wide side lap. Batten strip splice joints are made by overlapping the batten 12" and securing with two Sarnafastener XP screws spaced 6" o.c. Laps are sealed with at

1.5" wide heat weld on the outside edge and 1.0" wide heat weld on the inside edge.

Maximum Design Pressure -75.0 psf. (See General Limitation #7)

Maximum Design

Pressures: See Fastening Pattern. (See General Limitation #7)



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Deck Description: Min. 18-22 ga., A1008 SS Grade 80 or A653 Grade 80 steel deck is fastened to 0.25 in. thick

structural supports, spaced 6' o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps

fastened with Traxx 1 fasteners spaced 24 in. o.c.

System Type D(2): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(Optional): insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:Insulation Fasteners
(Table 3)Fastener
Density/ft²Any approved insulation listed in Table 2:N/AN/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 attached to deck as specified below with Sarnarail Polymer Batten Strips.

Fastening #1: Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners spaced 18" o.c. through batten strip

spaced maximum 73.25" o.c. within the 5.5" wide side lap. Batten strip splice joints are

made by overlapping the batten 24" and securing with two Sarnafil MAXLoad,

Sarnafastener MAXLoad screws spaced 18" o.c. Laps are sealed with at 1.5" wide heat

weld on the outside edge and 1.0" wide heat weld on the inside edge. *Maximum Design Pressure -45.0 psf.* (See General Limitation #7)

Fastening #2: Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners spaced 18" o.c. through batten strip

spaced maximum 73.25" o.c. within the 5.5" wide side lap. Batten strip splice joints are

made by overlapping the batten 24" and securing with two Sarnafil MAXLoad,

Sarnafastener MAXLoad screws spaced 18" o.c. Laps are sealed with at 1.5" wide heat

weld on the outside edge and 1.0" wide heat weld on the inside edge.

Maximum Design Pressure -52.5 psf. (See General Limitation #7)

Maximum Design

Pressures: See Fastening Pattern. (See General Limitation #7)



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Deck Description: Minimum 2500 psi concrete or concrete plank or min. 18-22 ga., A1008 SS Grade 80 or

A653 Grade 80 steel deck is fastened to 0.25 in. thick structural supports, spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx 1 fasteners

spaced 24 in. o.c.

System Type D(3): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders (Optional):

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:

Insulation Fasteners (Table 3)

Any approved insulation listed in Table 2:

Maximum 1.0" thick

N/A

N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan attached to deck as specified below.

Sarnafasteners-XP fasteners and Sarnadisc-XPN plates spaced 6" o.c. within 5.5" wide laps spaced 114.5" o.c. Laps are sealed with a 1.75" wide heat weld on outside edge of lap.

Maximum Design

-60.0 psf. (See General Limitation #7)

Pressures:



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Deck Description: Minimum 2500 psi concrete or concrete plank or min. 18-22 ga., A1008 SS Grade 80 or

A653 Grade 80 steel deck is fastened to 0.25 in. thick structural supports, spaced 5.5 ft. o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx 1 fasteners

spaced 24 in. o.c.

System Type D(4): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders (Optional):

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:Insulation Fasteners
(Table 3)Fastener
Density/ft²Any approved insulation listed in Table 2:N/AN/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 attached to deck as specified below with Sarnarail Polymer Batten Strips.

Sarnafasteners-XP fasteners spaced 6" o.c. through batten strip spaced maximum 144" o.c. within the 5.5" wide side lap. Batten strip splice joints are made by overlapping the batten 12" and securing with two Sarnafastener XP screws spaced 6" o.c. Laps are sealed with at 1.5" wide heat weld on the outside edge and 1.0" wide heat weld on the inside edge.

Maximum Design

Pressures:

-60.0 psf. (See General Limitation #7)



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Deck Description: Minimum 2500 psi concrete or concrete plank or min. 18-22 ga., Type B steel deck is

fastened to 0.25 in. thick structural supports, spaced 6 ft o.c. with Traxx 5 fasteners spaced 6

in. o.c. and with side laps fastened with Traxx 1 fasteners spaced 24 in. o.c.

System Type D(5): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(**Optional**): insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

 Base Insulation Layer:
 Insulation Fasteners (Table 3)
 Fastener Density/ft²

 Any approved insulation listed in Table 2:
 N/A
 N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan attached to deck as specified below.

Fastening #1: (Steel or Concrete Deck Only) Sarnafasteners-XP fasteners and Sarnadisc XPN plates

spaced 6" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Laps are sealed with

a minimum 0.5" wide outside edge heat weld.

Maximum Design Pressure -45.0 psf. (See General Limitation #7)

Fastening #2: (Steel Deck Only) Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnadisc

MAXLoad Plates spaced 6" o.c. within 7" wide side laps spaced maximum 113" o.c. Laps

are sealed with a minimum 0.875" wide outside edge heat weld.

Maximum Design Pressure -60.0 psf (See General Limitation #7)

Maximum Design

Pressures:

See Fastening Pattern. (See General Limitation #7)



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Deck Description: Minimum 2500 psi concrete or concrete plank or min. 18-22 ga., A1008 SS Grade 80 or A653

Grade 80 steel deck is fastened to 0.25 in. thick structural supports, spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx 1 fasteners spaced

24 in. o.c.

System Type D(6): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders (Optional):

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4'

and not less than four fasteners for any board with any greater dimension than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:	<u>Insulation Fasteners</u>	<u>Fastener</u>
	<u>(Table 3)</u>	Density/ft ²
Any approved insulation listed in Table 2:		
Maximum 1.0" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan attached to deck as specified below with Sarnarail Polymer Batten Strips spaced at

114.5" o.c. within a 5.5" wide lap.

Fastening #1: (Steel or Concrete Deck Only) Sarnafasteners-XP fasteners spaced 6" o.c. through batten

strip. Batten strip is lapped 8" and sealed with a 1.25" wide heat weld on outside edge and a

0.75" wide heat weld on inside edge.

Maximum Design Pressure -52.5 psf. (See General Limitation #7)

Fastening #2: (Steel Deck Only) Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners spaced 12" o.c.

through batten strip. Batten strip is lapped 14" and sealed with a 1.25" wide heat weld on

outside edge and a 0.75" wide heat weld on inside edge.

Maximum Design Pressure -52.5 psf. (See General Limitation #7)



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through batten strip. Batten strip is lapped 8" and sealed with a 1.25" wide heat weld on

outside edge and a 0.75" wide heat weld on inside edge.

Maximum Design Pressure -67.5 psf. (See General Limitation #7)

Maximum Design

Pressures:

See Fastening Pattern. (See General Limitation #7)



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Deck Description: Minimum 2500 psi concrete or concrete plank or min. 18-22 ga., A1008 SS Grade 80 or

A653 SS Grade 80 Type B steel deck is fastened to 0.25 in. thick structural supports, spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx 1

fasteners spaced 24 in. o.c.

System Type D(7): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders (Optional):

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:Insulation FastenersFastener(Table 3)Density/ft²

Any approved insulation listed in Table 2:

Maximum 1.0" thick N/A N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan attached to deck as specified below.

Fastening #1: (Steel Deck Only) Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and 3/4" wide

Sarnarail Polymer Batten Strip spaced 12" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Batten Strip is lapped 14" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide outside edge heat weld and minimum

0.75" wide inside edge heat weld.

Maximum Design Pressure -45.0 psf. (See General Limitation #7)

Fastening #2: (Steel or Concrete Deck Only) Sarnafasteners-XP fasteners or OMG #15 Roofgrip Large

Head fasteners and ¾" wide Sarnarail Polymer Batten Strip spaced 6" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Batten Strip is lapped 8" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide outside

edge heat weld and minimum 0.75" wide inside edge heat weld. *Maximum Design Pressure -60.0 psf.* (See General Limitation #7)



NOA No.: 14-0624.15 Expiration Date: 05/16/17 Approval Date: 07/30/15 Page 65 of 74 **Fastening #3:**

(Steel Deck Only) Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and 3/4" wide Sarnarail Polymer Batten Strip spaced 6" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Batten Strip is lapped 8" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide outside edge heat weld and minimum 0.75" wide inside edge heat weld.

Maximum Design Pressure -67.5 psf. (See General Limitation #7)

Maximum Design Pressures:

See Fastening Pattern. (See General Limitation #7)



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Single Ply, PVC **Membrane Type:** Deck Type 7I: Recover, Insulated

Deck Description: Minimum 18-22 ga., A1008 SS Grade 80 or A653 SS Grade 80 Type B steel deck is fastened

to 0.25 in, thick structural supports, spaced 5.5' o.c. with Traxx 5 fasteners spaced 6 in, o.c.

and with side laps fastened with Traxx 1 fasteners spaced 24 in. o.c.

Membrane attached over preliminary fastened insulation. System Type D(8):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(Optional): insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer: Insulation Fasteners Fastener Density/ft² (Table 3) Any approved insulation listed in Table 2: Maximum 1.0" thick N/A N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan attached to deck as specified below.

Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and 3/4" wide Sarnarail Polymer **Fastening:**

> Batten Strip spaced 6" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Batten Strip is lapped 8" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide outside edge heat weld and minimum 0.75" wide inside

edge heat weld.

Maximum Design

-75.0 psf (See General Limitation #7) Pressures:



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Deck Description: Minimum 2500 psi concrete or concrete plank or min. 18-22 ga., A1008 SS Grade 80 steel

deck is fastened to 0.25 in. thick structural supports, spaced 6' o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx 1 fasteners spaced 24 in. o.c.

System Type D(9): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders (Optional):

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:Insulation Fasteners
(Table 3)Fastener
Density/ft²Any approved insulation listed in Table 2:N/AN/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan attached to deck as specified below.

Fastening #1: Sarnafasteners-XP fasteners and Sarnarail Polymer Batten Strip spaced 12" o.c. within 5.5"

wide side laps spaced maximum 54" o.c. Laps are sealed with a minimum 1" wide outside

heat weld and a minimum 5/8" wide inside heat weld.

Maximum Design Pressure -52.5 psf. (See General Limitation #7)

Fastening #2: Sarnafasteners-XP fasteners and Sarnadisc XPN plates spaced 12" o.c. within 5.5" wide side

laps spaced maximum 54" o.c. Laps are sealed with a minimum 1.6" wide outside heat

weld

Maximum Design Pressure -60.0 psf. (See General Limitation #7)



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laps spaced maximum 54" o.c. Laps are sealed with a minimum 1.6" wide outside heat

weld.

Maximum Design Pressure -90.0 psf. (See General Limitation #7)

Maximum Design

Pressures:

See Fastening Pattern. (See General Limitation #7)



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Deck Description: Min. 18-22 ga., A1008 SS Grade 80 steel deck is fastened to 0.25 in. thick structural

supports, spaced 6' o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened

with Traxx 1 fasteners spaced 24 in. o.c.

System Type D(10): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders (Optional):

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:Insulation Fasteners
(Table 3)Fastener
Density/ft²Any approved insulation listed in Table 2:N/AN/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sikaplan attached to deck as specified below.

Fastening #1: Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnarail Polymer Batten Strip

spaced 24" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a

minimum 1" wide outside heat weld and a minimum 5/8" wide inside heat weld.

Maximum Design Pressure -45.0 psf. (See General Limitation #7)

Fastening #2: Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad Plates

spaced 24" o.c. within 6.5" wide side laps spaced maximum 53" o.c. Laps are sealed with a

minimum 1.6" wide outside heat weld.

Maximum Design Pressure -45.0 psf. (See General Limitation #7)



NOA No.: 14-0624.15 Expiration Date: 05/16/17 Approval Date: 07/30/15 Page 70 of 74 **Fastening #3:** Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad Plates

spaced 12" o.c. within 7" wide side laps spaced maximum 113" o.c. Laps are sealed with a

minimum 1.5" wide outside heat weld.

Maximum Design Pressure -45.0 psf. (See General Limitation #7)

Fastening #4: Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnarail Polymer Batten Strip

spaced 18" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a

minimum 1" wide outside heat weld and a minimum 5/8" wide inside heat weld.

Maximum Design Pressure -52.5 psf. (See General Limitation #7)

Fastening #5: Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad Plates

spaced 18" o.c. within 6.5" wide side laps spaced maximum 53" o.c. Laps are sealed with a

minimum 1.6" wide outside heat weld.

Maximum Design Pressure -52.5 psf. (See General Limitation #7)

Fastening #6: Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad Plates

spaced 12" o.c. within 6.5" wide side laps spaced maximum 53" o.c. Laps are sealed with a

minimum 1.6" wide outside heat weld.

Maximum Design Pressure -60.0 psf. (See General Limitation #7)

Fastening #7: Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnarail Polymer Batten Strip

spaced 12" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a

minimum 1" wide outside heat weld and a minimum 5/8" wide inside heat weld.

Maximum Design Pressure -67.5 psf. (See General Limitation #7)

Fastening #8: Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad Plates

spaced 6" o.c. within 6.5" wide side laps spaced maximum 53" o.c. Laps are sealed with a

minimum 1.6" wide outside heat weld.

Maximum Design Pressure -105.0 psf. (See General Limitation #7)

Fastening #9: Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnarail Polymer Batten Strip

spaced 6" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a

minimum 1" wide outside heat weld and a minimum 5/8" wide inside heat weld.

Maximum Design Pressure -112.5 psf. (See General Limitation #7)

Maximum Design

Pressures:

See Fastening Pattern. (See General Limitation #7)



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Single Ply, PVC **Membrane Type:** Deck Type 7I: Recover, Insulated

Deck Description: Minimum 22 ga., Grade 80, Type B steel deck is fastened to 0.25 in. thick structural

> supports, spaced 6' o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx 1 fasteners spaced 18 in. o.c. * The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 338 lbf when tested with fasteners, listed in this assembly.

installed through to the deck in accordance with TAS 105.

System Type D(11): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder (Optional):

Sarnavap-10 vapor barrier applied directly to the deck or over the base insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension

greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer: Insulation Fasteners Fastener Density/ft² (Table 3)

Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II

Minimum 1.5" thick or tapered N/A N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or Sikaplan attached to deck as specified below.

Six Sarnabars spaced 36" o.c. maximum, fastened with Sarnafasteners-XP spaced 6" o.c. **Fastening #1:**

through the field of the membrane and covered with a 7" minimum width cover strip with

minimum 1.5" wide welds on each side.

Maximum Design

-112.5 psf (See General Limitation #7) **Pressure:**



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Membrane Type: Single Ply, PVC

Deck Type 7: Recover, Non-Insulated

Deck Description: Concrete/lightweight concrete/cementitious wood fiber/steel

System Type F(1): Membrane adhered to sustrate.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier: None

Membrane: Sarnafil G410, G410 Felt, S327 or S327 Felt adhered with Sarnacol 2170 adhesive applied

to the substrate only at 1.5 to 2.5 gal/sq. Minimum 3" wide side lap is sealed with a 1.5"

wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #9)

Membrane Type: Single Ply, PVC

Deck Type 7: Recover, Non-Insulated

Deck Description: Concrete/steel

System Type F(2): Membrane adhered to sustrate.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane: Sarnafil S327 Felt or G410 Felt adhered with Sarnacol AD Feltback Membrane Adhesive or

Sarnacol OM Feltback Membrane Adhesive applied in four rows of 0.5" wide ribbons spaced 12" o.c. and rolled with a weighted roller. Minimum 3" wide side lap is sealed with

a 1.5" wide heat weld.

Maximum Design

Pressure: -120.0 psf. (See General Limitation #7)



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RECOVER SYSTEM LIMITATIONS:

1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.

GENERAL LIMITATIONS:

- 1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
- 3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf..
- 5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
- 6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
- 10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



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